

WHAT IS CLAIMED IS:

1 1. A method of generating a backplane parity value comprising:
2 receiving a data stream at a communications interface of a telecommunications
3 system, wherein said data stream comprises a first plurality of words;
4 rearranging said data stream into a second plurality of words, wherein
5 said second plurality of words include a relock word, and
6 said relock word is configured to allow said telecommunications
7 system to synchronize with said data stream; and
8 for each of said second plurality of words, determining if said each of said
9 second plurality of words should be included in a parity calculation by
10 determining if said each of said second plurality of words is said relock
11 word, and
12 ignoring said each of said second plurality of words, if said each of
13 said second plurality of words is said relock word, and
14 including said each of said second plurality of words in said parity
15 calculation, otherwise.

1 2. The method of claim 1, wherein said each of said words is a byte.

1 3. The method of claim 2, wherein said parity calculation comprises:
2 calculating said backplane parity value by performing a bit-wise exclusive-or
3 between said words.

1 4. The method of claim 1, wherein said first plurality of words is
2 organized as a first frame having a first frame format and said second plurality of
3 words is organized as a second frame having a second frame format.

1 5. The method of claim 4, wherein said second frame includes said relock
2 word.

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6. The method of claim 1, wherein
said telecommunications system includes a switching matrix coupled to said
communications interface, and
said switching matrix switches during said relock word.

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7. A method of transmitting information across a switching matrix
comprising:
receiving information, wherein
said information is in a transmission unit,
said transmission unit is divided into a plurality of words, and
said words are arranged in a first format;
rearranging a plurality of said words into a second format; and
generating a parity value from at least one of said words.

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8. The method of claim 7, wherein said information is received as an
optical signal.

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9. The method of claim 7, wherein said transmission unit is a frame.

10. The method of claim 9, wherein said frame is a SONET frame.

11. The method of claim 9, wherein said rearranging rearranges said
transmission unit into a backplane frame.

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12. The method of claim 7, wherein said parity value is a backplane parity
byte.

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13. The method of claim 12, wherein
each one of said words is a byte, and
said generating comprises calculating said backplane parity value by
performing a bit-wise exclusive-or between said words.

14. The method of claim 7, wherein said second format allows said switching matrix to be switched errorlessly.

15. The method of claim 7, wherein said second format includes a relock word.

16. The method of claim 15, wherein said second format includes a relock word.

17. The method of claim 16, wherein said switching matrix is switched during a period of time that said relock words are traversing said switching matrix.